

Detachments in digraphs

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Detachment of vertices is a generalization of splitting off edges. One may think of a detachment at s in $G = (V + s, E)$ as splitting off some pairs of edges at s and then afterwards 'hooking' up these edges with a new vertex s' . Alternatively one can say a detachment adds a new vertex s' and distributes the edges of s among s and s' . One may attempt to detach vertices preserving k -edge-connectivity among the vertices in V or perhaps k -edge-connectivity of the new graph. One may also have requirements on degrees of the detached vertices. These problems have all been solved for graphs. We will present results solving some of these problems for digraphs.

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